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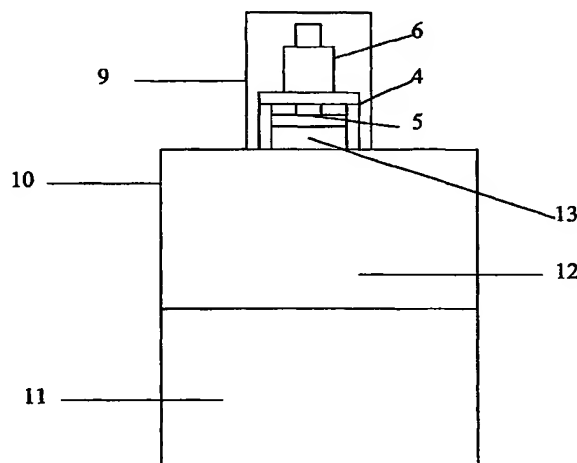
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(54) Title: VOLUME MEASURING DEVICE



(57) Abstract: The volume measuring device (9) is a linear solenoid-based piston-type device designed to measure the separate gaseous (12) and non-gaseous (11) volumes of a di-phasic mixture within a vessel (10). The invention is attached to a vessel containing the materials as illustrated in Figure 9, and effects a small change in volume of the gaseous fraction of material in the vessel. During each solenoid piston (5) stroke the invention takes a continual series of measurements. By applying a technique derived from Boyle's Law and other algorithms the invention determines the volume of the gaseous fraction of material within the vessel. The volume of the non-gaseous fraction is determined by subtracting the gaseous volume from the known volume of the vessel. Significantly, there is no requirement for knowledge of the absolute pressure or temperature.

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